

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1-12 (cancelled).

13. (New) A power supply apparatus comprising:
- a charge pump DC/DC converter having a capacitor for charging and discharging; and
 - a series regulator,
- wherein the charge pump DC/DC converter and the series regulator are operated depending on an operation command,
- wherein the series regulator comprises:
- an input terminal into which an input voltage is inputted;
 - an output terminal from which an output voltage is outputted;
 - a transistor connected between the input and output terminals;
 - an error amplifier in which an output signal from the error amplifier is inputted to a gate of the transistor;
 - a first resistor, a second resistor and a switching element connected in series between the output terminal and a predetermined potential terminal,
- wherein the error amplifier has input terminals to which a reference potential and a potential at a node between the first and second resistors are inputted, and
- wherein the switching element is turned on or turned off based on the operation command.

14. (New) A power supply apparatus comprising:

a DC/DC converter; and
a series regulator,
wherein the DC/DC converter and the series regulator are operated depending on an operation command, and
wherein the series regulator comprises:
an input terminal into which an input voltage is inputted;
an output terminal from which an output voltage is outputted;
a transistor connected between the input and output terminals;
an error amplifier in which an output signal from the error amplifier is inputted to a gate of the transistor;
a first resistor, a second resistor and a switching element connected in series between the output terminal and a predetermined potential terminal,
wherein the error amplifier has input terminals to which a reference potential and a potential at a node between the first and second resistors are inputted, and
wherein the switching element is turned on or turned off based on the operation command.

15. (New) A power supply apparatus comprising:
a switching regulator; and
a series regulator,
wherein the switching regulator and the series regulator are operated depending on an operation command, and
wherein the series regulator comprises:
an input terminal into which an input voltage is inputted;
an output terminal from which an output voltage is outputted;
a transistor connected between the input and output terminals;

an error amplifier in which an output signal from the error amplifier is inputted to a gate of the transistor;

a first resistor, a second resistor and a switching element connected in series between the output terminal and a predetermined potential terminal,

wherein the error amplifier has input terminals to which a reference potential and a potential at a node between the first and second resistors are inputted, and wherein the switching element is turned on or turned off based on the operation command.